

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A debarking mechanism for the decortication or pretreatment of tree logs for separately performed final barking and for the expulsion of at least some of the removed barks from a wood flow passing through the debarking mechanism, said debarking mechanism comprising a plurality of rotatable debarking shafts extending parallel to an advancing direction (A) of tree logs to be fed therethrough and provided with a number of teeth extending beyond a circumferential surface of the shaft and adapted to strip bark off the presently processed tree logs transversely to a lengthwise direction of the tree logs and at the same time to convey the tree logs transversely relative to said shafts, and said shafts, together with the teeth thereof, being adapted to comprise at least part of a support surface, upon which the tree logs travel through the debarking mechanism, and said debarking shafts being adapted relative to each other such that the tree logs move in a circular motion (C) in the debarking mechanism, in which motion the tree logs upon the support surface formed by the debarking shafts are forced by the rotatory motion of the debarking shafts in their turn into an upper position from which the tree logs roll down above the other tree logs in the debarking mechanism into a lower position, wherein an uppermost debarking shaft is fitted together with a guiding surface, said guiding surface together with the uppermost debarking shaft forming a slot convergent in the direction of rotation of the debarking shaft.

2. (Previously Presented) A debarking mechanism as set forth in claim 1, wherein the guiding surface is provided with grooves for interlocking the guiding surface and the teeth of the uppermost debarking shaft.

3. (Previously Presented) A debarking mechanism as set forth in claim 1, wherein the guiding surface comprises of a freely rotating roller.

4. (Previously Presented) A debarking mechanism as set forth in claim 1, wherein the guiding surface comprises of a rotatable roller.

5. (Currently Amended) A debarking mechanism as set forth in claim 1, wherein at least one of the debarking shafts, is sideways towards an inner part of the debarking mechanism, said sideways debarking shaft forcing the ~~tree~~logs moved by lower debarking shafts to change their direction of motion so that when dividing the motion into a horizontal and a vertical component, the horizontal component points at the inner part of the debarking mechanism.

6. (Previously Presented) A debarking mechanism as set forth in claim 1, wherein a circumferential speed of the debarking shaft is greater the higher the debarking shaft lies.

7. (Currently Amended) A debarker for removing bark from ~~tree~~logs comprising:
a plurality of rotating debarking shafts arranged side-by-side and in a debarking plane, said shafts being parallel to an advancing direction of the ~~tree~~logs through the debarker and include debarking features projecting from an outer shaft surface;

the debarking shafts in the debarking plane forming a support surface for the ~~tree~~logs in the debarker, the debarking shafts rotating in a direction that deflects the ~~tree~~logs and removed bark upward in a direction substantially transverse to the advancing direction;

an offset debarking shaft parallel to and adjacent one of the debarking shafts in the debarking plane, the offset debarking shaft including debarking features and the offset debarking shaft being offset in a direction upward from the debarking plane;

a guiding surface parallel to and upwards of the offset debarking shaft, and

a slot between the guiding surface and the offset debarking shaft, wherein the slot converges along a direction aligned with a rotational direction of the debarking shaft.

8. (Previously Presented) A debarker as in claim 7 wherein the guiding surface is a rotating shaft without debarking features.

9. (Previously Presented) A debarker as in claim 7 wherein the debarking features are teeth extending outward from an outer cylindrical surface of the shafts.

10. (Previously Presented) A debarker as in claim 7 wherein the guiding surface includes grooves transverse to the offset debarking shaft and said grooves interlaced with the debarking features on the offset debarking shaft.

11. (Previously Presented) A debarker as in claim 1 wherein the guiding surface comprises at least one freely rotating roller.

12. (Previously Presented) A debarker as in claim 1 wherein the guiding surface comprises a rotating roller.

13. (Currently Amended) A debarker as in claim 1 further comprising a upstanding support surface opposite to the debarking shafts and a tree log vessel defined by and between the upstanding support surface and the debarking shafts.

14. (Currently Amended) A method for removing bark from treeslogs in a debarker having a plurality of debarking shafts arranged side-by-side and in a debarking plane, an offset debarking shaft parallel to and adjacent one of the debarking shafts in the debarking plane, and a guiding surface parallel to and upwards of the offset debarking shaft, the method comprising:

advancing treeslogs through the debarker in a direction generally parallel to debarking shafts and the debarking plane;

removing bark from the treeslogs by rotating the debarking shafts which include debarking teeth that cut bark from treeslogs abutting the rotating shafts;

~~by rotating and cutting by the debarking shafts, forces trees forcing logs~~ in the debarker to be deflected upwards, wherein the upward deflection causes bark removed from the ~~treeslogs~~ to advance upward to the offset debarking shaft;

advancing the removed bark over the rotating offset debarking shaft and through a convergent slot formed between the offset debarking shaft and the guiding surface, wherein the slot is too narrower to pass the ~~treeslogs~~.

15. (Currently Amended) A method as in claim 14 wherein the direction of advancement of the ~~treeslogs~~ through the debarker is generally horizontal and the direction in which ~~treeslogs~~ are deflected upward in the debarker is generally verical.

16. (Previously Presented) A method as in claim 14 wherein the guiding surface is a rotating shaft without teeth and the rotation of the guiding surface and the offset debarking shaft draws bark through the slot.

17. (Previously Presented) A method as in claim 14 wherein the guiding surface includes grooves transverse to the offset debarking shaft and the grooves interlace with the teeth of the offset debarking shaft.

18. (Previously Presented) A method as in claim 14 wherein the guiding surface includes at least one freely rotating roller and the method further comprises turning the guiding surface by the advancement of bark through the slot.

19. (Previously Presented) A method as in claim 14 wherein the guiding surface includes at a driven rotating roller and the method further comprises advancing the bark through the slot by the combined rotations of the rotating roller and the offset debarking shaft.

20. (Currently Amended) A method as in claim 14 wherein the upward deflection of the ~~tree~~logs includes a generally oval circulation of ~~tree~~logs in the debarker, wherein the oval circulation is transverse to the debarking shafts.